Joan Perez

age: 36
residence: London, United Kingdom
education: Bachelors Degree in management
occupation: Finance officer at government
marital status: Married

Gentle, data sensitive but no programming skills.

Joan is a finance officer, recently tackling with an educational data set . He is in his eigth year of working at this position now, starting to get touch with modern data science skills, but also now realizing how much he needs to improve. He wants to get better, but also wants to be smart about it. In this case, he applied for a grant from the Ministry of Finance to hire programmer with relevant experience in data science to analyse the education expenditure data at hand. And from there, he want to gain some programming skills at the same time.

Comfort With Technology

INTERNET

SOFTWARE

MOBILE APPS

SOCIAL NETWORK

Criteria For Success:

Applying modern technology to statistics and data problems. Finding the right people to do the right thing.

Needs

- Data set support from the sector
- Support from software engineers with knowledge of statistics
- Good teamwork environment

Wants

- Something that doesn't take long to setup
- Products that integrate with dash app
- Interactive interface

Values

- Time savings
- Products that easily fit into his current workflow
- Spirit of teamwork
- Positive working attitude

Fears

- Cutting into already sparse free time
- Starting something that isn't sustainable
- Massive dataset
- Paycuts
- Someone else has already built what he needs

Joan's needs:

1: Make the app easy to use. Since not all of the citizens an expert in computer engineering。

Solution: Create a multipage dash app for data visualization, user could simply click and scroll the page and slider for different data set.

2: Since we provide you three sheets of data and to make the page better to use. Please design the page in a well organize way.

Solution: Create multipage dash app to well display different dataset. Allocate each dataset a page to display information.

3: For enrolment and institution distribution dataset, we need to change our policy for different enrolment level of students and institutions. So, we want visualization of changing of different institutions in percentage.

Solution: Create callback function to display data by different level of enrolment and institutions in percentage in specific year (pie chart). For example, using a slider for choosing specific year of data.

4: For expenditure dataset, show the trend of inflation rate and constant price 1990 separately. The government need that for designing new economic policy.

Solution: Use bar line chart to display the trend.

5: For enrolment dataset, we need to reallocate the support policy for different level of enrolment. In this case, we need the trend of every dataset.

Solution: Use line chart to display the trend (normalize data), also plot bar chart to display the percentage of every level of enrolment occupied (without normalizing).

6: For institutional spending dataset, to quantify the spending by different institutions. Show the trend of different institutions.

Solution: Use line chart to display the trend (normalize data), also plot bar chart to display the percentage of every institution occupied (without normalizing).